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# ADPSM TRU Waste Program Discussion

**Steve Clemmons**

**ADPSM-Integrated Program Management  
TRU Waste Integration**

05/22/18



Operated by Los Alamos National Security, LLC for the U.S. Department of Energy's NNSA

# TA-55 TRU Waste Storage

## PF-4 Basement

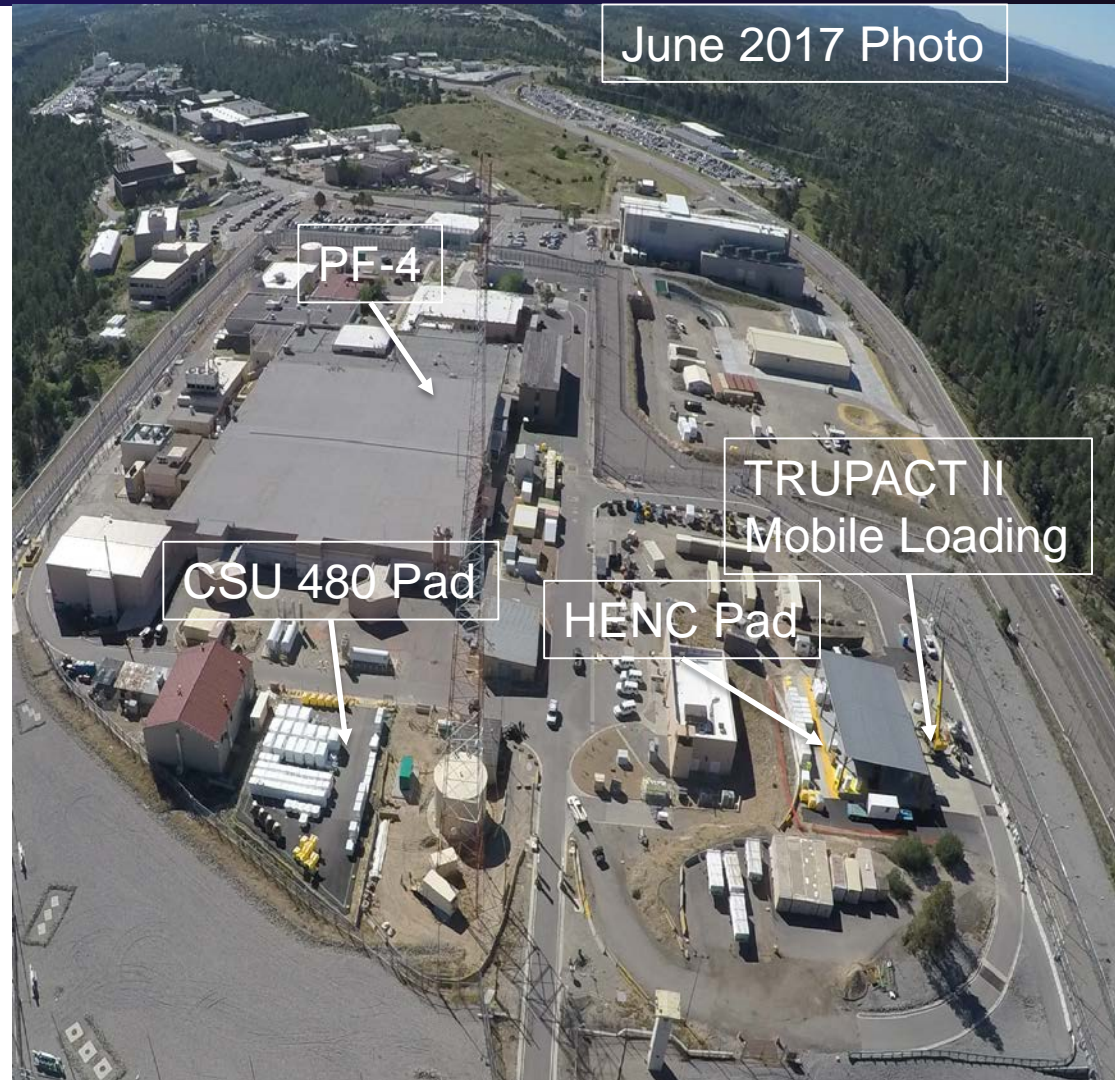
- Historical storage location for TA55
- RCRA Permitted

## High Energy Neutron Counter (HENC) Pad

- TRU waste storage contingency
- RCRA permitted
- Open air with metal roof
- CCP Non-Destructive Analysis (NDA) operations
- Two tier drum stacking
- Established October 2015

## Container Storage Unit (CSU) 480 Pad

- TRU waste storage contingency
- RCRA permitted
- Open air
- Two tier drum stacking
- Established December 2015



**Total TA55 drum storage capacity 1600 = Basement 470 + Outside Storage 1130**



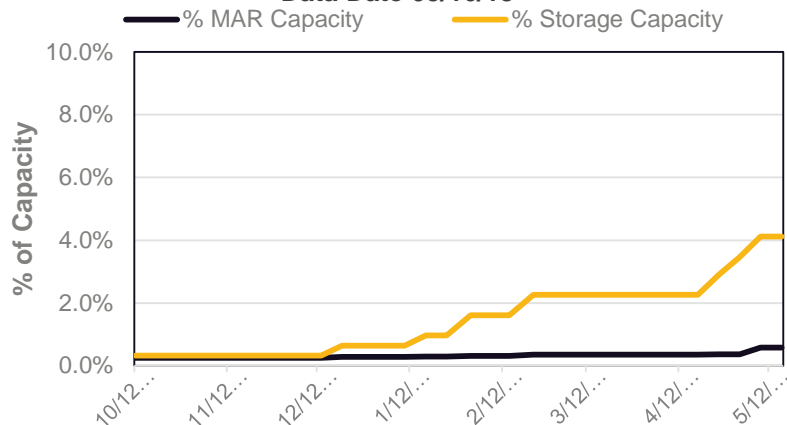
# TWF TRU Waste Storage

## Transuranic Waste Facility (TWF)

- Storage capacity 1240 drums
- Startup Authorization received 9/28/17
- First shipment 10/11/17
- Progress toward full utilization
  - RCRA Permit Mod to allow Pre-2016 TRU effective 06/16/18
  - OE-3 issued for POC fuel fire testing.
    - Next step is to revise and implement TWF DSA
  - TWF Startup Plan exited 05/03/18 which removes restriction on number of containers per shipment

### TWF MAR and Storage Capacity

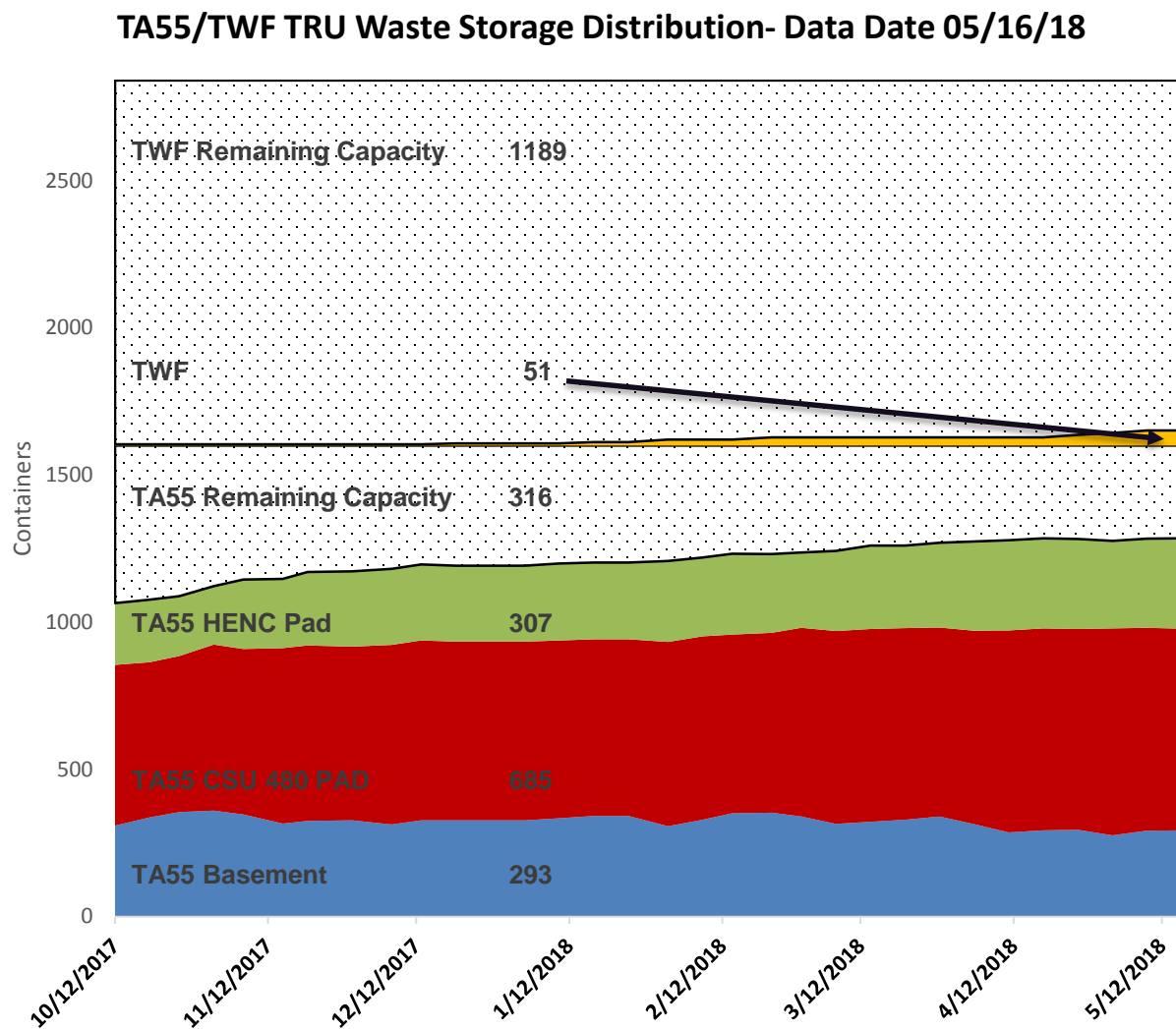
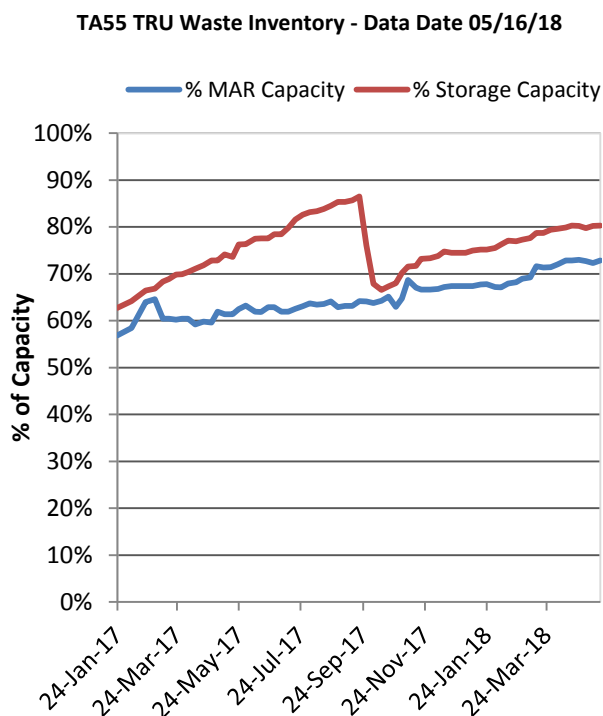
Data Date 05/16/18



**TRU Waste Facility (TWF) – TRU waste storage facility for the enduring nuclear mission at LANL.**

# TA55/TWF TRU Waste Inventory Status - 05/16/18

TA55/TWF TRU Waste Inventory - Data Date 05/16/18				
	TRU Waste MAR		TRU Waste Volume	
	PE-Ci/PE-Kg	% of Limit	Containers	% of Capacity
TA55 Basement (PE-Kg)	18.9	63.0%	293	62.3%
TA55 Outside (PE-Kg)	21.1	84.4%	992	87.8%
TWF Storage (PE-Ci)	95.6	0.58%	51	4.11%



**TWF RCRA restriction on waste generated on or before 12/31/15 to be eliminated effective 6/16/18.**

# TA55/TWF TRU Waste WIPP Certification Metrics

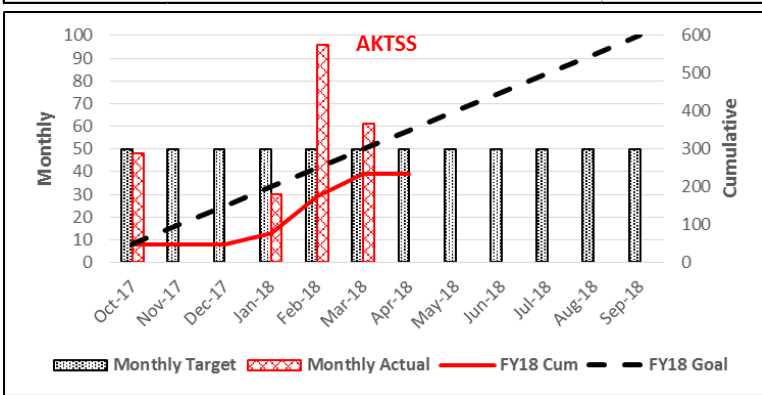
- Through APR 2018

Certification

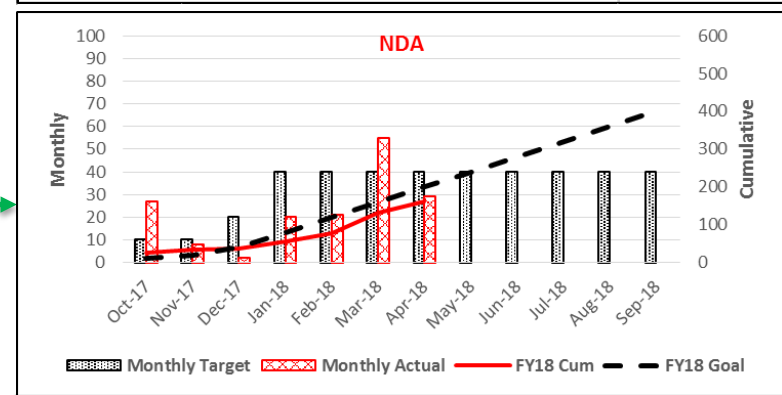
Process

Flow

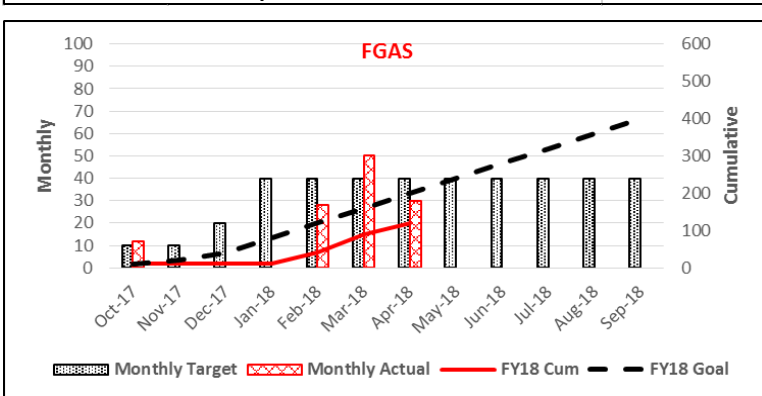
Push Inventory for WIPP AK	749
Total in WIPP AK System	528



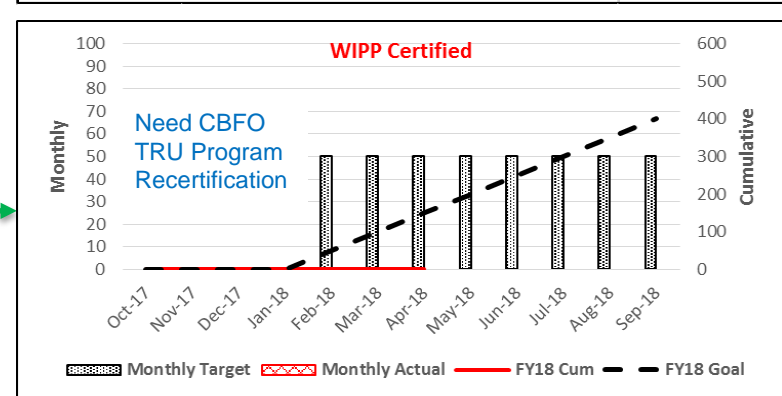
Push Inventory for NDA	163
Total NDA Complete	365



Push Inventory for FGAS	201
Total FGAS Complete	164



Push Inventory for WIPP Certification	164
Total Certified to Ship	0



# NNSA Waste Stored at Area G

## AREA G NNSA TRU Waste by Waste Stream and Process Stage

TRU Process Stage	Mixed			Totals
	Cemented Inorganic (CIN)	Heterogeneous Debris (MHD)	Soils/Mixed Inorganic (MSG/MIN)	
Previously Certified	71	44	7	122
Characterization Complete	13	32	9	54
In Characterization	1	124	5	130
Needs Characterization	3	36	2	41
Needs Remediation	3	27	4	34
<b>Totals</b>	<b>91</b>	<b>263</b>	<b>27</b>	<b>381</b>

**90% of NNSA  
TRU Waste in Area G  
Potentially Shippable  
w/o Remediation**

## Strategy for Disposition of Area G NNSA TRU Waste

- Coordinate container movement with EM-LA and EM contractor to complete characterization and build a WIPP certifiable backlog.
- Prioritize CIN and MHD waste streams with CCP.
- Ship from RANT to WIPP after RANT restart due to safeguards requirements on co-mingling at TA55.
- Coordinate remediation needs with EM-LA and EM contractor during EM campaigns with similar type waste. Discussions on cost, scope and schedule still to come.

Area G NNSA TRU Distribution by Year Received		
Row Labels	Count of PKG_ID	Sum of PKG_VOLUME
FY99-07 NG	157	42.94
FY08 NG	5	1.04
FY09 NG	7	1.46
FY10 NG	5	1.04
FY11 NG	6	2.94
FY12 NG	2	0.42
FY13 NG	27	16.55
FY14 NG	87	47.74
FY15 NG	71	25.03
FY17 NG	6	77.86
FY18 NG	8	95.89
<b>Grand Total</b>	<b>381</b>	<b>312.90</b>



# ADPSM TRU Waste Priorities

## Near Term TRU Waste Priorities

### 3<sup>rd</sup> Quarter FY18

1. **Manage TA55 TRU Waste Inventory such that nuclear missions are uninterrupted.**
  1. Balance MAR and Volume in TA55 storage by targeted container movement.
  2. Transfer currently allowable (Non Pre-2016 RCRA, Non-POC) TRU inventory to TWF.
2. **Submit DSA changes to NA-LA for :**
  1. TWF storage of POCs.
  2. RANT TRU Waste Loading Operations
3. **Implement TWF RCRA permit to allow Pre-2016 RCRA Waste ~ 200 containers.**
4. **Receive WIPP TRU Waste Certification Letter from CBFO.**
5. **Continue waste certification efforts through VE, NDA and FGAS to establish a backlog of WIPP certifiable containers.**

### 4<sup>th</sup> Quarter FY18

1. **Initiate shipments to WIPP from TA55/TWF TRU inventory.**
2. **Establish RTR and NDA capabilities at the TWF.**
3. **Reduce stored inventory of TRU waste at TA55 to less than 60% of volume and MAR Capacity.**
4. **Initiate readiness activities for restart of the RANT.**